

Claims

1. A medical device for attaching soft tissue to a bone comprising a bone anchor and a protective cover formed from a solid mass of biocompatible material, wherein said bone anchor is substantially encapsulated in said mass.
2. The protective cover of claim 1, wherein said mass is substantially deformable.
3. The protective cover of claim 1, wherein said mass is substantially brittle.
4. The protective cover of claim 1, wherein said mass comprises a bioabsorbable material.
5. The protective cover of claim 4, wherein said bioabsorbable material is selected from the group consisting of cross-linked alginate gel, cross-linked collagen, cross-linked hyaluronic acid hydrogel, polylactic-co-glycolic acid, polylactic acid, polyglycolic acid, polyurethane.
6. The protective cover of claims 1, further comprising an antimicrobial material.
7. The protective cover of claim 6, wherein said antimicrobial material comprises an antibiotic.
8. The protective cover of claim 7, wherein said antibiotic is selected from the group consisting of nafcillin, aminoglycoside, ciprofloxacin, piperacillin/tazobactam, ampicillin/sulbactam, vancomycin, cephalosporin, TMP/SMX, ampicillin, gentamicin, tobramycin, and ciprofloxacin.
9. The protective cover of claim 8, wherein said antibiotic is disposed within said bioabsorbable material to form said cover.
10. The protective cover of claim 8, wherein said antibiotic is applied to at least one surface of said protective cover.
11. A method of inserting a bone anchor into a bone, comprising:
 - (a) providing a bone anchor;
 - (b) providing a protective cover adapted to encapsulate said bone anchor;
 - (c) encapsulating said bone anchor in said protective cover;
 - (d) locating a bone anchor implantation site on a bone; and

(e) causing said bone anchor to penetrate said protective cover and implant in said bone.

12. The method of claim 11, wherein said bone anchor is encapsulated in said protective cover prior to engagement of said bone anchor to an implantation device.

13. The method of claim 11, wherein said bone anchor is encapsulated in said protective cover after engagement of said bone anchor to an implantation device.

14. The method of claim 11, wherein said protective cover for encapsulating a bone anchor comprises a generally ellipsoidal mass.

15. The method of claim 14, wherein said mass is substantially deformable.

16. The method of claim 14, wherein said mass is substantially brittle.

17. The method of claim 14, wherein said mass comprises a bioabsorbable material.

18. The method of claim 17, wherein said bioabsorbable material is selected from the group consisting of cross-linked alginated gel, cross-linked collagen, cross-linked hyaluronic acid hydrogel, polylactic-co-glycolic acid, polylactic acid, polyglycolic acid, polyurethane.

19. The method of claims 18, wherein said protective cover further comprises an antibiotic.

20. The method of claim 19, wherein said antibiotic is selected from the group consisting of nafcillin, aminoglycoside, ciprofloxin, piperacillin/tazobactam, ampicillin/sulbactam, vancomycin, cephalosporin, TMP/SMX, ampicillin, gentamicin, tobramycin, and ciprofloxacin.

21. The method of claim 20, wherein said antibiotic is disposed within said bioabsorbable material to form said cover.

22. The method of claim 20, wherein said antibiotic is applied to at least one surface of said protective cover.